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| 09/237,128      | 01/25/1999  | FRANK KASTENHOLZ     | AGM-002             | 9585             |

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EXAMINER

HO, DUC CHI

ART UNIT PAPER NUMBER

2665

DATE MAILED: 10/10/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/237,128

Applicant(s)

KASTENHOLZ, FRANK

Examiner

Duc C Ho

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 3-5, 7, 8, 10-13, 15-18 and 21-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-5, 7, 8, 10-13, 15-18 and 21-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

3. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 4 (3-5, 7, 8, 10-13, 15-16, 21-25, and 27-31) are rejected under 35 U.S.C. 102(e) as being anticipated by Zheng et al. (US 6,611,522), hereinafter referred to as Zheng.

Regarding claim 4, Zheng discloses a quality of service facility in a device for performing IP forwarding and ATM switching.

*receiving header data of a network layer packet* ( As shown at 96-fig. 11, the receive ASIC 70 decapsulates the demultiplexed data stream (step 162 in FIG. 10) to gain access to IP packets carried in the input data stream. The receive ASIC 70 is adapted for decapsulating a number of different types of OSI layer 2 encapsulations. The decapsulation step 162 of FIG. 10 may also include the deframing of SONET frames, which results into receiving an IP header at block 255-fig. 13, see column 18, lines 46-56);

*selecting a first one of the storage locations* ( a first level of a lookup arrays 504-fig. 24 that is indexed by the first two bytes of the destination IP address for an IP packet is inherently selected by the module 244-fig. 13, see column 24, lines 25-67) *based on a first set of bits contained in the header data* ( a set of bits in the block 562-fig. 27); *and executing an instruction at the first selected storage location* (After the instruction has been accessed in the interface structure (see step 522 in FIG. 26), an entry is accessed in the first lookup array and processed (step 524 in FIG. 26), see column 25, lines 1-3. In other words, an instruction at the first level of the lookup arrays 504-fig. 24 is accessed and executed);

*selecting a second one of the storage locations based on the executed instruction and a second set of bits contained in the header data* (The instruction signals the IP lookup module 244-fig. 13 to access an element in a second lookup table, see column 25, lines 3-5);

*selecting a third one of the storage locations based on contents of the second selected storage location and a third set of bits contained in the header data* (If the processing in the second lookup array does not complete the lookup (see step 528-fig. 26) the receive ASIC 70 access an entry in the third lookup array and processes it (step 532-fig. 26, see column 25, lines 1-19).

Regarding claim 5, the packet is an IP packet, page 8, lines 25-27.

Regarding claim 3, the forwarding module 244-fig. 13 inherently forwards the network layer packet base on the entry 582 or 580-fig. 28, see column 25, lines 21-31.

Regarding claims 10, 12, 21, 24, and 29, these claims have similar limitations as claim 4. Therefore, they are rejected under Zheng for the same reasons set forth in the rejection of claim 4.

Regarding claim 7, please see column 25, lines 1-19.

Regarding claim 8, the first entry 574-fig. 28 contains instruction to use the second forwarding lookup 576-fig. 28.

Regarding claim 11, the ASIC 70-fig.13 performs the above steps, see column 25, lines 1-19.

Regarding claim 13, the data packets are the IP packets.

Regarding claim 15, this claim has similar limitations as claim 4. Therefore, it is rejected under Zheng for the same reasons set forth in the rejection of claim 4. The module 244-fig.13 functions as a forwarding controller.

Regarding claim 16, a processor is inherently included in the module 244-fig. 13 for executing instructions, see column 24, lines 4-15.

Regarding claim 22, the routing switching 84-fig. 6 contains input ports and the interface structures-fig. 24 that hold information regarding the input ports on which IP packets arrive.

Regarding claim 23, the routing switching 84-fig. 6 contains the interface structures-fig. 24 for directing the forwarding engine to access the first lookup array, see column 24, lines 4-24.

Regarding claim 25, the first level of the lookup arrays 504-fig. 24 contains instruction regarding how the device should forward the packet at layer 2.

Regarding claims 17, and 26, please see fig. 28, where more than a byte from the destination address is used as the index.

Regarding claim 18, the first lookup structure are indexed by two bytes at the structure 572-fig. 28.

Regarding claim 27, the packet at layer 2 contains a header, and the information from the header is inherently extracted.

Regarding claim 28, the data packets are the IP packets.

Regarding claim 30, please see column 25, lines 1-19 where the instruction at the second level is executed for forwarding the IP packet.

Regarding claim 31, please see column 25, lines 1-19 where the instruction at the first level is executed to use the second forwarding lookup, see also figure 28.

### ***Response to Arguments***

Art Unit: 2665

5. Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (703) 305-1332. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (703) 308-6602.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4750

7. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231


**or faxed to:**

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington, VA, Sixth Floor (Receptionist).

Patent Examiner

  
Duc Ho

10-08-03